What is claimed is:

1. A charger for mobile phone comprising:

a power input portion;

a switching power source portion supplied with electric power by the power input portion;

a control portion having a micro-computer logic circuit supplied with electric energy by the switching power source portion;

a capacitor portion having plural electric double-layer capacitors to accumulate the electric energy supplied by the control portion;

a feedback circuit to transmit charging state of the electric double-layer capacitors to the control portion; and

an output portion to supply the electric energy accumulated in the electric double-layer capacitors to a battery of a mobile phone with constant voltage; wherein:

charge and discharge of the electric double-layer capacitors and supplied voltage are controlled by the control portion as to correspond to the charging state of the electric double-layer capacitors transmitted by the feedback circuit.

2. The charger for mobile phone as set forth in claim 1, wherein the power input portion is alternatively connected to a commercial power source and a car battery.

3. The charger for mobile phone as set forth in claim 1 or claim 2,

wherein the plural electric double-layer capacitors are serially connected.

4. The charger for mobile phone as set forth in claim 1 or claim 2, wherein the control portion controls as that current (I_1) to charge the electric double-layer capacitors is much larger than current(I_2) running from the electric double-layer capacitors to the output portion to charge the battery of the mobile phone.

5. The charger for mobile phone as set forth in claim 4, wherein $5 \leqq I_1 / I_2 \leqq 50$.

6. The charger for mobile phone as set forth in claim 1 or claim 2, wherein the plural electric double-layer capacitors are serially connected, each terminal voltage of the electric double-layer capacitors is detected and transmitted to the control portion through the feedback circuit, total voltage value is calculated by program control of the micro-computer logic circuit of the control portion as the terminal voltage is within an operational range, and the total voltage value is supplied to the plural electric double-layer capacitors as supplied voltage.

7. The charger for mobile phone as set forth in claim 1 or claim 2, wherein the plural electric double-layer capacitors are serially connected, and the switching power source portion is controlled by program control of the micro-computer logic circuit of the control portion as that current of the maximum power of the switching power

source portion is supplied to the electric double-layer capacitors with detecting and transmitting each terminal voltage of the electric double-layer capacitors to the control portion through the feedback circuit.

8. An operation method of charger for mobile phone comprising the steps of:

connecting a capacitor portion having plural electric double-layer capacitors, a power input portion of a charger having the power input portion and an output portion to a commercial power source or a car battery for boosting charge;

separating the power input portion for carrying the charger; and

connecting the output portion of the charger to a battery of a mobile phone to charge for a period of time 5 to 50 times longer than that of the boosting charge.

9. A charging apparatus for mobile phone comprising a stationary public charger connected to a commercial power source, and plural portable chargers, each of which has a capacitor portion composed of electric double-layer capacitors to accumulate electric energy supplied by the public charger in connected state, and a constant voltage output portion detachably connected to a battery of a mobile phone to charge, detachably connected to the public charger.

10. The charging apparatus for mobile phone as set forth in claim 9, wherein the stationary public charger is a box-shaped charger installed in convenience stores, hotels, stations, and public spaces, and, having

a coin slot, a sensor switch to detect feeding of a coin to the coin slot, and an on-off control means to control as electric energy is supplied to the capacitor portion of the portable charger in connected state by detection work of the sensor switch.

11. The charging apparatus for mobile phone as set forth in claim 9 or claim 10, wherein the stationary public charger is provided with a power source portion to rectify and decrease AC power from the commercial power source, a battery to accumulate DC power from the power source portion, a constant power control portion to control as constant power is supplied to the portable charger in connected state, and a terminal to which the portable charger is detachably connected.

12. The charging apparatus for mobile phone as set forth in claim 9 or claim 10, wherein the capacitor portion of the portable charger is composed of a serial connection of the electric double-layer capacitors to accumulate electric energy supplied by the public charger.

13. The charging apparatus for mobile phone as set forth in claim 9 or claim 10, wherein current (I_1) running from the public charger to the capacitor portion of the portable charger to charge is much larger than current(I_2) running from the capacitor portion to the constant voltage output portion to charge the battery of the mobile phone.

14. The charger for mobile phone as set forth in claim 13, wherein $5 \leqq I_1 / I_2 \leqq 200$.

15. A charging method for mobile phone comprising the steps of:

installing a box-shaped public charger in convenience stores, hotels, stations, and public spaces;

connecting a portable charger having electric double-layer capacitors to the public charger and feeding a coin to the public charger for boosting charge;

separating the portable charger from the public charger for carrying; and

connecting the portable charger to a mobile phone to charge while the mobile phone is being carried.